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Name of Registered Representative:

*John A. Freeman*

John A. Freeman, Registration No. 34,483

*September 21, 2001*

Date of Signature

Patent

Case No. 10546/42

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Jaffray et al.

Serial No.: 09/788,335

Filed: February 16, 2001

For: CONE-BEAM COMPUTERIZED  
TOMOGRAPHY WITH A FLAT  
PANEL IMAGER

Art Unit: 2876

Examiner: unassigned

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56 and in conformance with 37 C.F.R. §§ 1.97-1.98, Applicants hereby submit the following references for consideration by the Examiner. Copies of all of the references are enclosed along with a completed copy of Form PTO-1449.


## **I. DISCLOSURE**

### **A. U.S. Patents**

<b><u>Patent No.</u></b>	<b><u>Inventor</u></b>	<b><u>Issue Date</u></b>
5,394,452	Swerdloff et al.	02/28/95
5,411,026	Carol	05/02/95
5,661,773	Swerdloff et al.	08/26/97
5,748,700	Shepherd et al.	05/05/98
5,751,781	Brown et al.	05/12/98
5,912,943	Deucher et al.	06/15/99
6,152,598	Tomisaki et al.	11/28/00

### **B. Literature**

1. Jaffray et al., "Exploring 'Target of the Day' Strategies for a Medical Linear Accelerator with Conebeam-CT Scanning Capability," XIIth ICCR held in Salt Lake City, Utah, May 27-30, 1997, pp. 172-174.
2. Jaffray et al., "Conebeam Tomographic Guidance of Radiation Field Placement for Radiotherapy of the Prostate," Manuscript accepted for publication in the International Journal of Radiation Oncology, Biology, date unknown, 32 pages.
3. Jaffray et al., "Managing Geometric Uncertainty in Conformal Intensity-Modulated Radiation Therapy," Seminars in Radiation Oncology, Vol. 9, No. 1, January, 1999 pp. 4-19.
4. Jaffray et al., "Performance of a Volumetric CT Scanner Based Upon a Flat-Panel Imager," SPIE Physics of Medical Imaging, Vol. 3659, February, 1999, pp. 204-214.

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5. Jaffray et al., "A Ghost Story: Spatio-temporal Response Characteristics of an Indirect-Detection Flat-Panel Imager," *Med. Phys.*, Vol. 26, No. 8, August, 1999, pp. 1624-1641.
  6. Jaffray et al., "Cone-Beam Computed Tomography with a Flat-Panel Imager: Initial Performance Characterization," Submission to the *Medical Physics Journal* for publication on August, 1999, 36 pages.
  7. Siewerdsen et al., "Cone-Beam Computed Tomography with a Flat-Panel Imager: Effects of Image Lag," *Med. Phys.*, Vol. 26, No. 12, December, 1999, pp. 2635-2647.
  8. Jaffray et al., "Cone-Beam CT: Applications in Image-Guided External Beam Radiotherapy and Brachytherapy, publication source unknown, date unknown, one page.
  9. Siewerdsen et al., "Cone-Beam CT with a Flat-Panel Imager: Noise Consideration for Fully 3-D Computed Tomography," *SPIE Physics of Medical Imaging*, Vol. 3336, February, 2000, pp. 546-554.
  10. Jaffray et al., "Cone-Beam Computed Tomography with a Flat-Panel Imager: Initial Performance Characterization," *Med. Phys.*, Vol. 27, No. 6, June, 2000, pp. 1311-1323.
  11. Siewerdsen et al., "Optimization of X-Ray Imaging Geometry (with Specific Application to Flat-Panel Cone-Beam Computed Tomography)," Non-Final Version of Manuscript to be published in *Med. Phys.*, Vol. 27, No. 8, August, 2000, pp. 1-12.
  12. Dieu et al., "Ion Beam Sputter-Deposited SiN/TiN Attenuating Phase-Shift

- Photoblanks,” publication source and date unknown, 8 pages.
13. Jaffray et al., “Flat-Panel Cone-Beam CT for Image-Guided External Beam Radiotherapy,” publication source unknown, October, 1999, 36 pages.

## **II. DISCUSSION**

### **A. U.S. Patent No. 5,661,773**

The ‘773 patent was designated as a Y-type reference in corresponding PCT Patent Application PCT/US01/05077. A Y-type reference is a document of particular relevance where the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

### **B. U.S. Patent No. 5,748,700**

The ‘700 patent was designated as a Y-type reference in corresponding PCT Patent Application PCT/US01/05077.

### **C. U.S. Patent No. 5,751,781**

The ‘781 patent was designated as an X-type and a Y-type reference in corresponding PCT Patent Application PCT/US01/05077. An X-type reference is a document of particular relevance where the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone.

### **D. U.S. Patent No. 5,912,943**

The ‘943 patent was designated as an A-type reference in corresponding PCT Patent Application PCT/US01/05077. An A-type reference is a document defining the general state of

the art which is not considered to be of particular relevance.

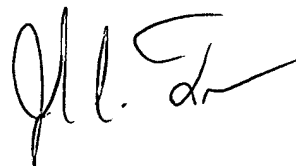
**E. U.S. Patent No. 6,152,598**

The '598 patent was designated as an A-type reference in corresponding PCT Patent Application PCT/US01/05077.

**III. CONCLUSION**

It is believed that none of these references, alone or in combination, disclose or suggest the invention claimed. However, Applicants wish to make it clear that the disclosure of the above references is in no way an admission that they qualify as prior art. It is Applicants' desire, however, to have these references available in the record for both the Examiner and the public to see. Applicants therefore request that the Examiner review the entire disclosure of each reference and make the above-listed references of record.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J.C. Freeman', with a stylized flourish at the end.

John C. Freeman  
Registration No. 34,483  
Attorney for Applicants

BRINKS HOFER  
GILSON & LIONE  
P.O. Box 10395  
Chicago, Illinois 60610  
(312) 321-4200

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